General

Title

Stroke: percent of ischemic stroke patients with atrial fibrillation/flutter who are prescribed anticoagulation therapy at hospital discharge.

Source(s)

Specifications manual for national hospital inpatient quality measures, version 5.0b. Centers for Medicare & Medicaid Services (CMS), The Joint Commission; Effective 2015 Oct 1. various p.

Measure Domain

Primary Measure Domain

Clinical Quality Measures: Process

Secondary Measure Domain

Does not apply to this measure

Brief Abstract

Description

This measure is used to assess the percent of patients 18 years of age and older with both an ischemic stroke and atrial fibrillation/flutter who are prescribed anticoagulation therapy at hospital discharge.

Rationale

Nonvalvular atrial fibrillation (NVAF) is a common arrhythmia and an important risk factor for stroke. It is one of several conditions and lifestyle factors that have been identified as risk factors for stroke. It has been estimated that over 2 million adults in the United States have NVAF. While the median age of patients with atrial fibrillation is 75 years, the incidence increases with advancing age. For example, the Framingham Heart Study noted a dramatic increase in stroke risk associated with atrial fibrillation with advancing age, from 1.5% for those 50 to 59 years of age to 23.5% for those 80 to 89 years of age. Furthermore, a prior stroke or transient ischemic attack (TIA) are among a limited number of predictors of high stroke risk within the population of patients with atrial fibrillation. Therefore, much emphasis has

been placed on identifying methods for preventing recurrent ischemic stroke as well as preventing first stroke. Prevention strategies focus on the modifiable risk factors such as hypertension, smoking, and atrial fibrillation. Analysis of five placebo-controlled clinical trials investigating the efficacy of warfarin in the primary prevention of thromboembolic stroke, found the relative risk of thromboembolic stroke was reduced by 68% for atrial fibrillation patients treated with warfarin. In recent years, novel oral anticoagulant agents (NOACs) have been developed and proved by the U.S. Food and Drug Administration (FDA) for stroke prevention, and may be considered as an alternative to warfarin for select patients. The administration of anticoagulant therapy, unless there are contraindications, is an established effective strategy in preventing recurrent stroke in high stroke risk-atrial fibrillation patients with TIA or prior stroke.

Evidence for Rationale

Specifications manual for national hospital inpatient quality measures, version 5.0b. Centers for Medicare & Medicaid Services (CMS), The Joint Commission; Effective 2015 Oct 1. various p.

Primary Health Components

Stroke; atrial fibrillation/flutter; anticoagulation therapy

Denominator Description

Ischemic stroke patients with documented atrial fibrillation/flutter (see the related "Denominator Inclusions/Exclusions" field)

Numerator Description

Ischemic stroke patients prescribed anticoagulation therapy at hospital discharge

Evidence Supporting the Measure

Type of Evidence Supporting the Criterion of Quality for the Measure

A clinical practice guideline or other peer-reviewed synthesis of the clinical research evidence

A formal consensus procedure, involving experts in relevant clinical, methodological, public health and organizational sciences

A systematic review of the clinical research literature (e.g., Cochrane Review)

One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

Additional Information Supporting Need for the Measure

- Stroke ranks as the number five cause of death in the United States, following diseases of the heart, cancer, and chronic lung-related diseases. Each year, approximately 795,000 people experience a new or recurrent stroke. Approximately 610,000 of these are first attacks, and 185,000 are recurrent strokes. These numbers equate to one stroke victim every 40 seconds on average. According to 2010 mortality data, one of every 20 deaths in the United States is attributable to stroke. Women have a

higher lifetime risk of stroke than men. Lifetime risk of stroke among those 55 to 75 years of age was 1 in 5 for women (20% to 21%) and approximately 1 in 6 for men (14% to 17%). Blacks have a risk of first-ever stroke that is almost twice that of whites (American Heart Association [AHA], 2015).

- Stroke is also a leading cause of long-term disability (Centers for Disease Control and Prevention [CDC], 2009). Data from the National Heart, Lung and Blood Institute (NHLBI) revealed that 50% of ischemic stroke survivors age greater than 65 years had some hemiparesis; 35% experienced depressive symptoms; 30% were unable to ambulate without assistance; 26% were dependent in activities of daily living; 19% had aphasia; and 26% were institutionalized in a nursing home. The mean lifetime cost of ischemic stroke, including inpatient care, rehabilitation, and follow-up as necessary for residual deficits are estimated at $140,048 per person (AHA, 2015).
- Approximately 20% of ischemic strokes result from a cerebral embolism secondary to a cardiac arrhythmia or disorder. Atrial fibrillation (AF) is the most common sustained cardiac rhythm disturbance (CDC, 2009). Paroxysmal, persistent, and permanent atrial fibrillation are strong predictors of first and recurrent stroke, increasing ischemic stroke risk four to five-fold. It is estimated that over 2.3 million Americans have atrial fibrillation, and the incidence becomes more prevalent with age. AF accounts for approximately 1.5% of stroke in individuals 50 to 59 years of age, and ≈ 3.5% in those 80 to 89 years of age (AHA, 2015).
- Patients who have suffered an ischemic stroke who have a high-risk source of cardiogenic embolism should generally be treated with anticoagulant drugs to prevent reoccurrence. Ischemic stroke rates per 1000 patient-years declined in AF patients taking anticoagulants, from 46.7% in 1992 to 19.1% in 2002 (AHA, 2015). According to the Framingham Study (Lin et al., 1996), AF is also an independent risk factor for ischemic stroke severity, recurrence, and mortality (Lin et al., 1996). In a study from Penado and associates (2003), people who had AF and were not treated with anticoagulants had a 2.1-fold increase in risk for recurrent stroke and a 2.4-fold increase in risk for recurrent severe stroke.
- In addition to the costs attributed to stroke, the treatment of atrial fibrillation alone represents a significant health care burden. The estimated cost of treatment of atrial fibrillation in 2005 was $6.65 billion per year, including the costs of hospitalization, inpatient and outpatient physician care, and medications (AHA, 2015).

Evidence for Additional Information Supporting Need for the Measure

American Heart Association (AHA). Heart disease and stroke statistics - 2015 update. Dallas (TX): American Heart Association (AHA); 2015. 22 p.

Centers for Disease Control and Prevention (CDC). Prevalence and most common causes of disability among adults--United States, 2005. MMWR Morb Mortal Wkly Rep. 2009 May 1;58(16):421-6. PubMed

Lin HJ, Wolf PA, Kelly-Hayes M, Beiser AS, Kase CS, Benjamin EJ, D'Agostino RB. Stroke severity in atrial fibrillation. The Framingham Study. Stroke. 1996 Oct;27(10):1760-4. PubMed

Penado S, Cano M, Acha O, HernÃindez JL, Riancho JA. Atrial fibrillation as a risk factor for stroke recurrence. Am J Med. 2003 Feb 15;114(3):206-10. PubMed

Extent of Measure Testing

Unspecified

State of Use of the Measure

State of Use

Current routine use

Current Use

not defined yet

Application of the Measure in its Current Use

Measurement Setting

Hospital Inpatient

Professionals Involved in Delivery of Health Services

not defined yet

Least Aggregated Level of Services Delivery Addressed

Single Health Care Delivery or Public Health Organizations

Statement of Acceptable Minimum Sample Size

Specified

Target Population Age

Age greater than or equal to 18 years

Target Population Gender

Either male or female

National Strategy for Quality Improvement in Health Care

National Quality Strategy Aim

Better Care

National Quality Strategy Priority

Making Care Safer
Prevention and Treatment of Leading Causes of Mortality

Institute of Medicine (IOM) National Health Care Quality Report Categories

IOM Care Need

Getting Better

IOM Domain

Effectiveness

Safety

Data Collection for the Measure

Case Finding Period

Discharges October 1 through June 30

Denominator Sampling Frame

Patients associated with provider

Denominator (Index) Event or Characteristic

Clinical Condition

Institutionalization

Patient/Individual (Consumer) Characteristic

Denominator Time Window

not defined yet

Denominator Inclusions/Exclusions

Inclusions

Discharges with an *International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Principal Diagnosis Code* for ischemic stroke (as defined in the appendices of the original measure documentation)
Patients with documented *Atrial Fibrillation/Flutter* (as defined in the Data Dictionary)

Exclusions

Patients less than 18 years of age
Patients who have a Length of Stay (LOS) greater than 120 days
Patients with *Comfort Measures Only* (as defined in the Data Dictionary) documented
Patients enrolled in clinical trials

Patients admitted for *Elective Carotid Intervention* (as defined in the Data Dictionary)
Patients discharged to another hospital
Patients who left against medical advice
Patients who expired
Patients discharged to home for hospice care
Patients discharged to a health care facility for hospice care
Patients with a documented *Reason For Not Prescribing Anticoagulation Therapy* (as defined in the Data Dictionary)

Exclusions/Exceptions

not defined yet

Numerator Inclusions/Exclusions

Inclusions
Ischemic stroke patients prescribed anticoagulation therapy at hospital discharge

Exclusions
None

Numerator Search Strategy

Institutionalization

Data Source

Administrative clinical data

Electronic health/medical record

Paper medical record

Type of Health State

Does not apply to this measure

Instruments Used and/or Associated with the Measure

- STK Initial Patient Population Algorithm Flowchart
- STK-3: Anticoagulation Therapy for Atrial Fibrillation/Flutter Flowchart

Computation of the Measure

Measure Specifies Disaggregation

Does not apply to this measure

Scoring

Rate/Proportion

Interpretation of Score

Desired value is a higher score

Allowance for Patient or Population Factors

not defined yet

Standard of Comparison

not defined yet

Identifying Information

Original Title

STK-3: anticoagulation therapy for atrial fibrillation/flutter.

Measure Collection Name

National Hospital Inpatient Quality Measures

Measure Set Name

Stroke

Submitter

The Joint Commission - Health Care Accreditation Organization

Developer

The Joint Commission - Health Care Accreditation Organization

Funding Source(s)

All external funding for measure development has been received and used in full compliance with The Joint Commission's Corporate Sponsorship policies, which are available upon written request to The Joint Commission.

Composition of the Group that Developed the Measure

The composition of the group that developed the measure is available at: http://www.jointcommission.org/assets/1/6/Roster_STK_Maintenance_TAP_web_posting_Jul2012.pdf .

Financial Disclosures/Other Potential Conflicts of Interest

Expert panel members have made full disclosure of relevant financial and conflict of interest information in accordance with the Joint Commission's Conflict of Interest policies, copies of which are available upon written request to The Joint Commission.

Endorser

National Quality Forum - None

NQF Number

not defined yet

Date of Endorsement

2014 Dec 23

Measure Initiative(s)

Hospital Inpatient Quality Reporting Program

Quality CheckÂ®

Adaptation

This measure was not adapted from another source.

Date of Most Current Version in NQMC

2015 Oct

Measure Maintenance

This measure is reviewed and updated every 6 months.

Date of Next Anticipated Revision

Unspecified

Measure Status

This is the current release of the measure.

This measure updates a previous version: Specifications manual for national hospital inpatient quality measures, version 4.3b. Centers for Medicare & Medicaid Services (CMS), The Joint Commission; 2014 Apr. various p.

Measure Availability

Source available from The Joint Commission Web site . Information is also available from the QualityNet Web site . Check The Joint Commission Web site and QualityNet Web site regularly for the most recent version of the specifications manual and for the applicable dates of discharge.

NQMC Status

The Joint Commission originally submitted this NQMC measure summary to ECRI Institute on April 30, 2009. This NQMC summary was reviewed accordingly by ECRI Institute on September 9, 2009. The information was verified by the measure developer on November 9, 2009.

The Joint Commission informed NQMC that this measure was updated on April 28, 2010 and provided an updated version of the NQMC summary. This NQMC summary was updated accordingly by ECRI Institute on September 3, 2010.

This NQMC summary was retrofitted into the new template on May 18, 2011.

The Joint Commission informed NQMC that this measure was updated on August 13, 2012 and provided an updated version of the NQMC summary. This NQMC summary was updated accordingly by ECRI Institute on December 17, 2012.

The Joint Commission informed NQMC that this measure was updated again on August 28, 2013 and provided an updated version of the NQMC summary. This NQMC summary was updated accordingly by ECRI Institute on January 30, 2014.

The Joint Commission informed NQMC that this measure was updated on March 23, 2015 and provided an updated version of the NQMC summary. This NQMC summary was updated accordingly by ECRI Institute on April 10, 2015.

The Joint Commission informed NQMC that this measure was updated on July 22, 2015 and provided an updated version of the NQMC summary. This NQMC summary was updated accordingly by ECRI Institute on August 4, 2015.

This NQMC summary was edited by ECRI Institute on November 16, 2015.

Copyright Statement

Production

Source(s)

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